A RECORD OF THE PROGRESS OF ELECTRICAL SCIENCE.

INDEX TO VOL. X.

ELECTRICAL REVIEW,

March 5th, to August 27th, 1887.

ILLUSTRATED ARTICLES ARE MARKED *

New York:

GEORGE WORTHINGTON, *Editor.*

CHAS. W. PRICE, *Associate Editor.*

LOREN N. DOWNS, *President.*

ANDREW J. DAM, *Vice-President and Treasurer*

UNIV. OF MINN. LIBRARY

(15299)

INDEX.

MARCH 5, TO AUGUST 27, 1887. 13 PARK ROW, NEW YORK.

A

Alps Telephone Lines, Mar. 12, p 4
Accidents from Electricity Greatly Exaggerated, Mar. 19, p 4
Air, Transmission of Electricity by, Mar. 19, p 8
*Annunciator, Hazazer & Stanley, Mar. 26, p 2
*Advertising Device, Electric, Mar. 26, p 3
Aluminum, Its Discovery, Mar. 26, p 3
Armature, Small, Mar. 26, p 4
Aluminum, Steel, Mar. 26, p 7
*Annunciator, Partrick & Carter, Apr. 2, p 3
Accumulator, Faure, Apr. 2, p 5
Alarms in Hotels, Apr. 16, p 6
*Arc Lamp, Simplex, Apr. 16, p 9
Asbury Park Lighting, Apr. 23, p 3
American Bell Telephone Co. Report, Apr. 23, p 6
Accumulators, Farbaky and Scheneck, Apr. 23, p 9
Atmospheric Pressure and Electricity, Apr. 30, p 1
Arkansas Letter, May 21, p 5
*Adams Call Register, May 28, p 7
Arc, Voltaic, New Method of Exciting, June 4, p 3
*Alternating Currents, Novel Phenomena, June 4, pp 8 & 9
Arc, Electric, Measuring the Counter E. M. F. in, Aug. 6, p 1
Air, Compressed, for Electric Lighting, Aug. 13, p 5
Accumulator, Tamine, Aug. 13, p 5
Alternating Currents, Distribution of, Aug. 20, p 7

B

Belt Slipping, Prevention for, Mar. 5, p 5
Bruises in Woodwork, to Take Out, Mar. 5, p 5
Brass Cleaning, Mar. 5, p 5
Boston District Messenger Co., Mar. 5, p 7
Brooklyn Police Call Boxes, Mar. 5, p 7
*Brake, Electric, Ries, Mar. 5, p 9
Baton, Electric, Mar. 12, p 4
Battery, Secondary, Internal Resistance of, Mar. 12, p 5
Bowdoin College Lighting, Mar. 19, p 1
Burton's Electric Heater, Mar. 19, p 1
Blake Patent, Annulment of, in Canada, Mar. 19, p 4
Boston Police Signal System, Mar. 19, p 5
*Barney's Pneumatic Telephone, Mar. 19, p 7
*Battery, Primary, Greeley & Co., Mar. 19, p 7
Boston's Induction System, Mar. 19, p 9
*Bell, Electric, Mar. 26, p 3
Boston Boom in Incandescent Lighting, Mar. 26, p 5
Body, Electricity in the, Apr. 2, p 2
Boats, Torpedo, Modern, Apr. 2, p 2
*Bell, Partrick & Carter, Apr. 2, p 3
Brussels, Electric Lighting in, Apr. 2, p 3
Battery for Medical Purposes, Apr. 2, p 5
Boston Edison Central Station, Apl. 2, p 8
*Burners, Gas Lighting, Apr. 2, p 8
*Battery, Medical, Apr. 9, p 3
Battery Solutions, Chromic Compounds for, Apr. 9, p 4
Batteries, Primary, Incandescent Lighting from, Apr. 16, p 4
Boiler Management, Apr. 16, p 8
Battery, Bichromate Soda, Apr. 23, p 1
Boilers, Jarvis, Apr. 23, p 8
Batteries, Storage, and Electric Light Plants, Apr. 30, p 4
*Building, Metropolitan Telephone Co., Apr. 30, p 6
Battery, Erhard's, Apr. 30, p 6
Berlin Central Electric Light Station, Apr. 30, p 9
Battery, Heat, May 7, p 1
Batteries, Use and Management of, May 7, p 2
Boston Electric Light Co. Offices, May 7, p 5
Body Telephoning, May 7, p 6
Buffalo Underground Wires, May 7, p 7
Bull Fight, Electric Lights for, May 7, p 8
Batteries, Bichromate of Soda, May 14, p 2
*Bridge Lights, May 21, p 2
Brooklyn Underground Work, May 21, p 7
Battery, Pabst, May 21, p 7
Batteries, Secondary, Method of Charging, May 21, p 8
Battle Field, Light for, May 28, p 1
Building for Electric Club, May 28, p 4
Battery Plants, Arrangement of, May 28, p 8
Bleaching by Electricity, May 28, p 9
Blood, Circulation of, June 4, p 3
Battery, Galvanic, Dun and Hasslacher, July 23, p 1
Batteries, Primary, July 23, p 5
Boston Underground Committee, July 23, p 6
Battery, Oxide of Copper, Expense of Running, July 30, p 5
Bell Patent Again Sustained, July 30, p 8
Bremen, Cost of Lighting at, July 30, p 8
*Battery, Storage, Smith's, Aug. 6, p 1
Brooklyn Telephone Offices, Aug. 6, p 6
Batteries, Concerning Construction, Use and Management of, Aug. 13, p 2
Battery, Powerful, Aug. 13, p 2
Battery Syndicate, Aug. 13, p 5
Battery, Storage, Present Status of, Aug. 20, p 17
Battery, Storage, for Locomotion, Aug. 20, p 17
Batteries, Secondary, Dr. Louis Duncan's Paper before The Electric Club, Aug. 27, p 1
*Bridge, Magnetic, Edison, Aug. 27, p 8
*Bridge, Magnetic, Eickemeyer, Aug. 27, p 9
Banquet, Thomson-Houston, Aug. 27, p 10

C

Chimney of Edison Co. Blown Down, Mar. 5, p 5
Copper Sulphate Solution Resistance, Mar. 5, p
Cement for Heated Objects, Mar. 5, p 5
Cement for Turners, Mar. 5, p 5
California Telephone Extensions, Mar. 5, p 5
Columbus (Ohio) Telephone Exchange, Mar. 5, p 5
Chicago River and Bridge Lighting, Mar. 12, p 5
Cement for Filling Castings, Mar. 12, p 5
Constant Current Machines, Mar. 12, p 5
*Converter, Westinghouse, Mar. 19, p 1
Chicago Underground Franchise, Mar. 19, p 4
Chicago Water Front Lighting, Mar. 19, p 5
City, Electrified, Mar. 19, p 6
Cables, Submarine, Mar. 19, p 6
Copper Separation, Improved Method, Mar. 19, p 7
Car Lit by Julien Batteries, Mar. 26, p 1
Chicago Boodlers and the Electric Light, Mar. 26, p 5
Copper, Its Market Position, Mar. 26, p 8
Cocoanut Tree, Effect of Lightning on, Mar. 26, p 9
Cables Suggested for Use in Buffalo, Apr. 2, p 7
Coils for Electro-Magnets, Inductionless, Apr. 9, p 1
Carbon Combination, Apr. 9, p 4
Carbon Companies Consolidated, Apr. 9, p 4
Carriage Lighting, Apr. 9, p 5
Cars Lit by Electricity, Apr. 9, p 8
Cells, Secondary, Experiments, Apr. 16, p 1
Compass as a Current Indicator, Apr. 16, p 4
Commutators, Points on, Apr. 23, p 1
Cell, Union Storage, Apr. 23, p 2
China, Telephones for, Apr. 23, p 8
Carbon Cutting Machine, Howell's, May 7, p 2
Cables of the World, May 7, p 6
Commutator, Pfannkuche, May 14, p 8
Cornell Engineering Course, May 14, p 9
Colleges, Electric Work in, May 21, p 4
Cables, Submarine, May 28, p 6
Chemical Reaction, Influence of Magnetism on, June 4, p 6
Collisions at Sea, Electricity as a Safeguard, June 4, p 7
Carbon, Graphite, July 23, p 9
Convention, Electric Light, Aug. 13, p 1
Cyclone, Cause of, Aug. 13, p 5
China, Telephone in, Aug. 13, p 6
Convention, Electric Light, Aug. 20, p 1
Copenhagen Cable Telephone System, Aug. 20, p 7
Cruisers, Lighting of, Aug. 20, p 11
Cooking by Electricity, Aug. 27, p 4

D

Dynamo Motor System, Discussion at The Electric Club Meeting, Mar. 5, p 1
Dynamo Induction or Static Sparks, Mar. 5, p 4
Dynamo, Edelmann, Mar. 5, p 5
Domestic Telephone Co. Sold, Mar. 5, p 6
*Dynamo, Eickemeyer's, Mar. 12, p 1
Dynamo as a Leyden Jar, Mar. 12, p 4
Dynamo Experiments of Mr. Eickemeyer, Mar. 12, p 4
Dakota Telephone Bill, Mar. 12, p 5
*Dynamo, Westinghouse, Mar. 19, p 1
*Dynamo, Victoria, Mar. 19, p 3
*Dynamo, Phœnix, Mar. 26, p 1
Dynamo, Blasting, Electromotive Force of, April 2, p 5
Dynamo, Eickemeyer, its Output, April 2, p 9
*Dynamo, Iron Clad, April 9, p 1
*Dynamo, Continental Hotel, Paris, April 16, p 3
*Dynamo in Continental Hotel, April 16, p 8
*Dynamo, Wood's, April 23, p 1
Dinner, Electric Club, April 30, p 1
Dynamo, Tremont Electric Co., April 30, p 9
*Dynamo, Brown, May 7, p 1
*Dynamo, Ganz & Co., May 14, p 8
Dynamo, Hand, Portable, May 21, p 9
*Drill, Rock, Phelps, July 23, p 1
*Dynamo, Schuyler, July 23, p 3
*Driving Gear for Dynamo, July 30, p 3
Dogs Killed by Electricity, Aug. 6, p 2
Dynamo, Siemens & Halske, Aug. 13, p 1
*Dynamo, The Phœnix, Aug. 20, pp 1 & 3
*Dynamo, Eickemeyer's, Aug. 27. p 1

E

Electrical Workers, Mar. 5, p 4
Elevator and Electric Lights, Mar. 5, p 4
Electricity Humorously Defined, Mar. 5, p 7
Eloquence, Electric, Mar. 12, p 1
Edison in Florida, Mar. 12, p 1
*Eickemeyer Dynamo, Mar. 12, p 1
*Engine, Brotherhood, Mar. 19, p 3
Electricity, its Possibilities, Mar. 19, p 5
Electromotive Force, Low, How Can It be Obtained? Mar. 19, p 5
Electricity, Definitions of, Mar. 26, p 3
*Engine, Rice, April 2, p 1
Electricity, Positive and Negative, Discrimination of, April 9, p 1
Engineering, Electric, April 9, p 3
Etching Liquid for Steel, April 9, p 5
Electric Club, Growth of, April 30, p 7
Engineer, Electrical, How to Become, May 7, p 4
Electric Club Meeting, May 28, p 1
Electricity, High Tension, June 4, p 1
Electric Lighting Progress, July 23, p 4
Execution by Electricity, Aug. 6, p 2
Electric Club Growth, Aug. 6, p 9
*Electrical Review Offices, Aug. 13, p 1
Electricity, Measurement of, Aug. 13 p 3
Electricity, Photographing, Aug. 13, p 6
Exploder for Mines, Electric, Aug. 13 p, 6
Electrical Education, Aug. 20, p 10
*Edison's Pyromagnetic Generator, Aug. 27, p 3
*Electricity Direct from Coal, Aug. 27, p 3
*Edison Magnetic Bridge, Aug. 27, p 3
*Eickemeyer Magnetic Bridge, Aug. 27, p 8
Electric Currents, Danger to Human Life, Aug. 27, p 12

F

Fuses, Lead Safety, Dimensions of, April 16, p 8
Fusible Strips, April 23, p 5
Fire Alarms, Improvement in, May 21, p 2
*Friedlander's Portable Lamp, July 23, p 9
Fishing, Electricity Applied to, Aug. 13, p 6
*Field's Electric Motor, Aug. 27, p 1

G

Germany Telephone Extensions, Mar. 5, p 6
Glue, Mar. 12, p 5
Grenade, Fire Preparations, Mar. 19, p 1
*Gas Lighting Apparatus, Mar. 19, p 9
Glue, To Render Insoluble, Mar. 26, p 5
*Gas Lighting Apparatus, April 2, p 8
Glow Lamp Lighting, April 6, p 4
Girard College Lighting, June 4, p 10
*Globe for Incandescent Light, July 30, p 8
*Governor, Automatic, Baker, Aug. 6, p 8
Gas Escape, Method of Indicating, Aug. 13, p 4
Globes, Incandescent Lamp, Blackening of, Aug. 13, p 5
*Generator, Pyromagnetic, Edison's, Aug. 27, p 3
Galvanometer Coils, Method of Comparing, Aug. 27, p 8

H

Headlight for Ships, Mar. 19, p 1
Heater, Electric, Burton's, Mar. 19, p 1
Heaters for Railway Cars—Who First Proposed Them? Mar. 26, p 8
*Herz Telephone, Apr. 9, p 8
Hotel Call, Hess, Apr. 23, p 6
Heat, Conversion into Electricity, May 7, p 9
Hoosac Tunnel Lighting, May 21, p 3
Hornets and Telegraph Men, May 21, p 7
*Heat Regulating Apparatus, Lee's, May 28, p 1
House Lighting by Electricity, May 28, p 9
Horse, Electricity applied to, July 30, p 7

I

Indiana Telephone Bill, Mar. 5, p 4
Iron, Magnetic Power of, Mar. 5, p 5
Illinois Legislature, Mar. 12, p 5
Incandescent Lamp Manufacture, Mar. 19, p 2
Insurance and Electricity, Mar. 19, p 8
Incandescent Lamp Manufacture, Mar. 26, p 1
Induction, Self, Apr. 2, p 2
Iron, Cast, to Saw Same, Apr. 2, p 5
India Telephone and Telegraph Communication, Apr. 2, p 7
Induction, Coefficient of, Apr. 23, p 2
*Incandescent Lamp Manufacture, May 7, p 2
Induction, Electro-Magnetic, July 23, p 2
Investment, Electrical, July 30, p 4
Incandescent Lamp Manufacture, Aug. 6, p 5

K

Kansas City Letter, Mar. 19, p 9
*Key, Telegraph, Steiners, Apr. 16, p 1

L

Leclanche Cell, Internal Resistance, Mar. 12, p 5
Locomotive, Electric, Mar. 19, p 3
Lubricant, Excellent, Mar. 19, p 8
Lamp, Arc, Horse Power Required to Run Same, Apr. 2, p 5
Lamp, Arc, The Simplex, Apr. 9, p 7
Light-House Illumination, Electric Light for, Apr. 9, p 9
*Lamp, Arc, Simplex, Apr. 16, p 9
Lamp, Straight Filament, United States, Apr. 30, p 3
Legislation, Electric, July 23, p 4
*Lamp, Portable, Friedlander's, July 23, p 9
Law, Underground Conductors, Aug. 6, p 2
Lamp, Electric, Miner's, Aug. 13, p 1
Lightning in Germany, Aug. 13, p 1
Legal Bureau Report, Aug. 20, p 2
Life and Electricity, Aug. 27, p 5

M

Massachusetts Legislature and Electric Lights, Mar. 5, p 5
Marble Polishing, Mar. 5, p 5
Municipal Signal Co. Elections, Mar. 5, p 7
*Motor, Electric, Griscom's, Mar. 5, p 8
Mail Boxes, Electric, Mar. 12, p 1
Meeting, The Electric Club, Mar. 12, p 1
Metal Lining, Mar. 12, p 5
Magneto Generators, Electromotive Force of, Mar. 12, p 5
Magnets, Dynamo, How are they Charged, Mar. 19, p 5
Message Legislation in Texas, Mar. 26, p 4
Magnetism, Hints on, Apr. 9, p 3
Moses, Dr. Otto A.—Response to the Toast of "Our Future," Apr. 30, p 8
Motors, Electric, Apr. 30, p 9
*Miller's Switch, May 28, p 6
Meeting, Railway Telegraph Superintendents, July 23, p 6
*Magnetism in Watches, July 30, p 1
Motor, Fisher's, July 30, p 9
Morse Alphabet, Suggested Change in, Aug. 6, p 1
Motors, Electric, Early, Aug. 6, p 5
Meeting of Subway Commission, Aug. 6, p 7
Motors in St. Louis, Aug. 6, p 8
Meeting, Boston Electric Club, Aug. 6, p 8
Motor, Electric, Cleveland, Aug. 6, p 9
*Mather Electric Company Factory, Aug. 13, p 1
*Motor, Electric, Field's, Aug. 27, p 1

N

Nuts, Screwing of, Mar. 5, p 5
Norwich Telephone Rentals Mar. 5, p 6
*Notre Dame University, Mar. 19, p 2
New Orleans Electric Lighting, Apr. 2, p 3
New Orleans Lighting Wrangle, Apr. 9, p 5
New York City Lighting Bids, Apr. 9, p 9
Nickel Plating, May 14, p 2
Newark Telephone Service, July 30, p 6

O

Ontario Telephone Situation, Mar. 12, p 5
Orne Cell, Internal Resistance, Mar. 12, p 5
*Ore Treated by Electricity, Aug. 6, p 3
Omaha Telephone Exchange, Aug. 6, p 6

P

Power, Electrical, in Boston, Mar. 5, p 5
Pulleys, Wood, to Harden, Mar. 5, p 5
Plate for Experiments, Mar. 5, p 7
Paraffine, Mar. 12, p 5; Apr. 16, p 5
Paris Exhibition, Lighting of, Mar. 19, p 2
*Plant, Electric Light, for Ship Lighting, Mar. 19, p 3
Poles, Fire Alarm and Telephone Wires on, Mar. 19, p 4
Platinum, Increasing Demand for, Mar. 19, p 4
Philadelphia Letter, Mar. 19, p 6
Prince of Wales Theater Installation, Mar. 26, p 3
Pittsburgh Electric Lighting, Mar. 26, p 4
Philadelphia's Electrical Department, Mar. 26, p 6
Plumbing and Electricity, Mar. 26, p 7
Photometer, April 9, p 1
Paris Lighting, April 16, p. 6
Police Alarm System, Apr. 23, p 6
*Potential Indicator, Apr. 30, p 1
Printing by Electricity, Apr. 30, p 5
Pots, Porous, for Primary Batteries, Apr. 30, p 5; May 7, p 5
Pyro Electricity, May 21, p 1
Patent Office, More Thorough Examination, May 21, p 9
Pittsburgh Telephone Lines, July 23, p 6
Pan Telephone Company at Washington, July 23, p 6
Patent Legislation Committee Report, Aug. 20, p 1
Plants, Electric Light, Proper Installation and Construction, Aug. 20, p 3
*Pyromagnetic Generator, Edison's, Aug. 27, p 3
Patent System of the United States, June 4, p 2
Pittsburgh Underground Work, June 4, p 6

R

Rochester Telephone Suit, Mar. 5, p 6
*Ries Electric Brake, Mar. 5, p 9
Railroad Lighting, Mar. 12, p 4
Report, Western Union, Mar. 19, p 7
*Rice Engine, Apr. 2, p. 1
Rates, Telephone, in Massachusetts, Apr. 2, p 5
Railway, Electric, at Pittsburgh, Apr. 2, p 6
Researches, Modern, Apr. 30, p 4
Relay, Telegraph, Lehmeyer, May 21, p 1
*Register, Double Pen, May 21, p 1
Rochester Lighting, May 21, p 9
Rheostat, Temperature Coefficients of Fine, May 28, p 8
Rae's System of Applying Electricity to the Treatment of Ore, Aug. 6, p 3
Report, Missouri and Kansas Telephone Co., Aug. 13, p 6

S

*Schuyler Distributor, Mar. 5, p 1
*Schuyler Incandescent Lamp and Socket, Mar. 5, p 1
Screw Rusted in Wood, to remove, Mar 5, p 5
Steam Plants for Electric Light Stations, How to Construct Them, Mar. 5, p 8
Steel, Remarkable Properties of, Mar. 12, p 4
Suit, New Orleans Against the Brush Co., Fire, Mar. 12, p 5
*Search Light, Portable, Mar. 19, p 1
Suit, Bell Co., in Boston, Mar. 19, p 4
Steam, Expansion of, Apr. 2, p 1
Spark, Electric, Electromotive Force of, Apr. 2, p 1
Springs, Spiral, Their Use for Measuring Instruments, Apr. 2, p 3
Subway Commission Talk, Apr. 2, p 6
Schuyler Company Reorganized, Apr. 2, p 8
Suez Canal, Electricity on the, Apr. 2, p 9
*Sounder, Telegraph, Steiner, Apr. 16, p 1
Shellac Solutions, Apr. 16, p 5
*Switchboard, Cable, Fire Department, Apr. 30, p 7
Sibley College Technical Education, May 7, p. 1
Sea Telephony, May 7, p 6
Speech, by Telephone, Limiting Distance, May 21, p 6
*Switch, Intermediate, Miller's, May 28, p 7
Subway, Alleged Fraud, July 23, p 7
Science, Advance in, July 23, p 7
Spring, Electric, July 23, p 9
*Seismometer, Dr. Otto A. Moses, July 30, p 9
Sea-Signals, Electric Light for, Aug. 6, p 23
Signal for Steering of Ships, Aug. 13, p 7
*Steamship Plant, Aug. 20, p 1

T

Tower Lighting, Safety for, Mar. 5, p 4
Telephone Invention, Mar. 5, p 4
*Telephone, Acoustic, Mar. 5, p 6

Texas, Anti-Bell Companies, Mar. 5, p 7
*Telephone, Pneumatic, Barney's, Mar. 19, p 7
Telephone Inventors, Mar. 26, p 5
Torpedo Boats, Modern, Apr. 2, p 2
Telephone, Push-Button, Apr. 2, p 5
Telephone, Herz's, Apr. 9, p 8
Transmitter, Telephone, Red Hot Conductor, Apr. 16, p 7
Transformers, Early Work On, Apr. 23, p 5
Train Lighting, Apr. 23, p 9
Transformers and Alternating Currents, May 7, p 3
Telephony, Duplex, May 7, p 3
Telegraph Tolls in the South, May 14, p 7
*Transformers, Series-Wound, Regulation of, May 21, p 3
Telemeter System, Inspection of, May 21, p 7
Train Lighting, Glasgow, May 21, p 8
*Telephone Call Register, May 28, p 7
Telephone, Early Days of, July 23, p 1
Trees, Sanitary Influences, July 23, p 3
Telegraphy, Half Century of, July 23, p 5
*Transformers in Use at Antwerp, July 30, p 1
*Telephone Line Between Brussels and Paris, July 30, p 6
Telegraph Lines, Determination of the Speed of Propagation of Electricity in, July 30, p 7
*Train Signal, Electric, Aug. 6, p 1
Trumpet, Electric, Cox's, Aug. 6, p 3
Train Telegraphy Improvement, Aug. 6, p 4
Telephoning, Long Distance, Aug. 6, p 6
Treasury, United States, Money in, Aug. 6, p 8
Tornado, Action of, Aug. 13, p 5
Trumpet, Electric, Aug. 13, p 6
Telegraphy, Ethics of, Aug. 13, p 6
Telegraphy, Progress of, Aug. 20, p 6
Telephoning Between Ships at Sea, Aug. 27, p 5
Transformers, Series Wound, Regulating Same, June 4, p 1

V

Varnish, Insulating, Apr. 16, p 5
Ventilation and Electric Light, July 23, p 2
Vienna Electric Light Station, Aug. 13, p 2

W

Wire, the Longest, Mar. 5, p 4
Worcester Gas Unsatisfactory, Mar. 5, p 5
Worcester Telephone Improvements, Mar. 5, p 6
Weil, Electric, Mar. 5, p 7
Whale's Tail, Horse-power of, Mar. 19, p 2
Wooden Boxes to Hold Sulphuric Acid, Mar. 26, p 5
Worcester Exhibition, Mar 26, p 6
Wire, Can it be Heated by Electric Current, Apr. 2, p 5
Wires in Cable, Can They be Crossed, Apr. 9, p 5
Wax, Black, Apr. 9, p 5
Wires, Carrying Capacity of, May 7, p 8
*Watches, Magnetism in, May 14, p 1
*Watches, Non-Magnetic, May 14, p 1
*Watch Movement, Non-Magnetic, July 30, p 1
Wire Gauge Report, Aug. 20, p 2
Wires, Proper Insulation of, Aug. 20, p 3
Wire, Silicon Bronze, Aug. 20, p 15

Y

Yale Scientific School, Addition of Electrical Apparatus, Mar. 5, p 5
Yacht Lighting, May 7, p 8
Yacht, Electric, Aug. 13, p 5
*Yacht, Electric Light Plant for, June 4, p 1

Z

Zinc, Cheap, April 9, p 5

BOUND VOLUMES OF ELECTRICAL REVIEW,

FROM SEPTEMBER 6, 1883,

WILL BE SENT TO ANY ADDRESS ON RECEIPT OF $3 PER VOLUME.

PATENTS.

ELECTRICAL REVIEW PATENT BUREAU

Conducts a general business in the preparation and prosecution of Applications for Patents, in the United States and all Foreign Countries. All business carefully and promptly attended to in the matter of Reissues, Caveats, Trade Marks, Labels, Design Patents, Copyrights.

SPECIAL SEARCHES made to determine the question of novelty or infringement.

ELECTRICAL PATENTS A SPECIAL FEATURE.

All business receives the direct personal supervision of the Manager, whose fourteen years' experience as Patent Attorney and seven years as Practical Electrician, insures thorough and satisfactory work.

All communications are strictly confidential, and inventors may address us with entire freedom.

Our charges will always be as moderate as first-class work will permit, and commensurate with the amount of work to be done.

ADDRESS,

ELECTRICAL REVIEW PATENT BUREAU,

P. O. Box 3329. **13 PARK ROW, NEW YORK.** *T. J. McTIGHE, Manager.*

ELECTRICAL REVIEW.

The ELECTRICAL REVIEW, an illustrated weekly journal, published at 13 Park Row, New York City, is the acknowledged leader in the world of electrical science. It embraces all that is of value and of interest to the worker and student in this field, and is the medium through which is obtained the most comprehensive and latest information concerning all electrical matters. Edited with care, its editorial opinion is reliable, and its news columns bright and instructive. In typographical beauty the paper is second to none. The subscription price is $3 per year; single copy, 6 cents.

Best Advertising Medium in the Electrical Field.

15299

P. O. Box 3329. 13 PARK ROW, NEW YORK.